UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/040,437	01/09/2002	Susumu Yamaguchi	02860.0701	5276

22852 7590 01/10/2008

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP
901 NEW YORK AVENUE, NW
WASHINGTON, DC 20001-4413

EXAMINER	
AGGARWAL, YOGESH K	

ART UNIT	PAPER NUMBER
2622	

MAIL DATE	DELIVERY MODE
01/10/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/040,437	YAMAGUCHI ET AL.	
	Examiner	Art Unit	
	Yogesh K. Aggarwal	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 October 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *14-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *14-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Arguments

1. Applicant's arguments filed 10/18/2007 have been fully considered but they are not persuasive.

Examiner's response:

2. Applicant argues with regards to claim 14 that Ueda fails to show that optical member 54 is brought into direct contact with a top surface member of image pickup element 12. Ueda discloses that the optical member (image forming lens 54) is actually disposed on substrate 51. (Ueda, Figs. 45-46; col. 23, ll.26-31) Although image pickup element 12 is located on base board 51, the top surface of pickup element 12 is not brought into direct contact with the optical member 54 as illustrated in Fig. 45 of Ueda. Moreover, Figure 46 of Ueda shows that connection wire 12A is actually in direct contact with image pickup element 12. The Examiner respectfully disagrees.

The claim recites "a peripheral top surface formed around the photo-electrically converting section and a side surface adjoining the peripheral top surface". As stated in the previous office action, CCD bare chip 12 and the peripheral portion on which the leg of the lens section 54 rests on the substrate 51 is read as image pick up element. Therefore in figure 45, when the optical element including the lens section 54 is mounted on the photoelectric section 12, the position between the lens section 54 and the photoelectrically converting section is determined by bringing the contact surface of the optical member in direct contact with the peripheral top surface or with a top surface member when the top surface member is provided on the peripheral surface. The claim does not recite "a peripheral top surface formed around the photoelectrically converting section and not on the base board" in order to overcome Ueda

reference. The peripheral portion is read as the surface surrounding the CCD bare chip 12. Therefore the claim is written broadly enough to be read on the peripheral surface surrounding the CCD.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda (US Patent # 6,122,009) in view of Hajime Oge (JP Patent # 409312808A).

[Claim 14]

Ueda teaches an image pickup device (figure 45) attached to a base board (figure 45, substrate 51) comprising an image pickup element (figure 45, CCD bare chip 12 and the peripheral portion on which the leg of the lens section 54 rests on the substrate 51 is read as image pick up element) attached to the base board (51) and including a photoelectrically converting section (CCD bare chip 12) in which pixels are arranged (col. 23 lines 37-43, light is converted to electric signals inherently by pixels), a peripheral top surface formed around the photoelectrically converting section and leg portion (peripheral top surface is read as wherein the leg section of the lens rests and where terminals to connect the CCD 12 are located) and a side surface adjoining the peripheral top surface (side surface is adjacent to the peripheral surface).

an optical member including a lens section (54) to form an image of an object onto the photoelectrically converting section (CCD 12) of the image pickup element, a leg section to support the lens section and a contact surface provided at a lower end of the leg section (figure 45 teaches lens section 54 having legs that support the lens section and a contact surface where it comes in contact with the image pick up element).

Ueda teaches in figure 45 a lens frame (resin 66), having a contact surface at a lower end thereof and an inner space in which the optical member is accommodated so as to come in contact with an inner wall of the lens frame

wherein the optical member is mounted on the image pickup element such that a position between the lens section and the photoelectrically converting section of the image pickup element in an optical axis direction is determined by bringing the contact surface of the optical member in direct contact with the peripheral top surface or with a top surface member when the top surface member is provided on the peripheral surface (In figure 45, when the optical element including the lens section 54 is mounted on the photoelectric section 12, the position between the lens section 54 and the photoelectrically converting section is determined by bringing the contact surface in direct contact with the peripheral top surface or with a top surface member)

wherein the lens frame (resin 66) is mounted on the base board (substrate 51) such that the position between the lens section and the photoelectrically converting section of the image pickup element in a direction perpendicular to the optical axis is determined by bringing the contact surface of the lens frame in direct contact with only a top surface of the base board and by positioning the lens frame on the base board (In figure 45, when the lens frame 66 is positioned on the base board 51, the position between the lens section and the photoelectrically

converting section 12 in a direction perpendicular to the optical axis is determined by bringing the contact surface of the lens frame in direct contact with only a top surface of the base board and by positioning the lens frame on the base board, See explanation above).

Ueda fail to teach a lens frame having a slidable contact surface wherein the lens frame is mounted on the base board such that the position between the lens section and the photoelectrically converting section of the image pickup element in a direction perpendicular to the optical axis is determined by bringing the slidable contact surface of the lens frame in direct contact with only a top surface of the base board and by positioning the slidable contact of the lens frame on the base board. However Oge teaches a lens structure 3 as shown in figure 4 that is moved in the X-Y direction to the CCD chip 2 on a substrate 1 (see figures 1-5) it adjusts so that a mark 5 may be arranged for alignment with the help of pattern detectors 9a and 9b, so that the axis of CCD chip and lens 6 will come in alignment (Paragraph 12).

Therefore taking the combined teachings of Ueda and Oge, it would be obvious to one skilled in the art at the time of the invention to have been motivated to have a slidable contact surface wherein the lens frame is mounted on the base board such that the position between the lens section and the photoelectrically converting section of the image pickup element in a direction perpendicular to the optical axis is determined by bringing the slidable contact surface of the lens frame in direct contact with only a top surface of the base board and by positioning the slidable contact of the lens frame on the base board in order to make positioning precise and easy and automate it, improve the productivity and reduce the cost by imaging the mark through a lens and moving and adjusting a lens structure as taught in Obe (Abstract).

[Claim 15]

Ueda teaches a connection wires to connect the CCD 12 to the substrate 51 (figure 45) and is formed on the peripheral surface formed around the photoelectrically converting section 12 and leg portion and the contact surface is brought in contact with the peripheral surface between the terminal And the photoelectrically converting section 12.

[Claim 16]

Figure 45 discloses the CCD bare chip 12 formed in the center of the image pickup element.

2. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda (US Patent # 6,122,009), Hajime Oge (JP Patent # 409312808A) and in further view of Ikeda (US Patent # 5,783,815).

[Claim 39]

Ueda in view of Oge fail to teach wherein the lens frame is fixed to the board with adhesive. However Ikeda teaches that a lens fitting member 5 that holds the lens 7 is fixed to the printed circuit board 1 with an adhesive 4 (figure 4d, col. 3 lines 43-47). Therefore taking the combined teachings of Ueda, Oge and Ikeda, it would be obvious to one skilled in the art at the time of the invention to have been motivated to have used an adhesive to connect the lens frame to the board in order to have a high viscosity adhesive and high plasticity before hardening by ultraviolet rays.

3. Claims 17 and 21-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda (US Patent # 6,122,009) in view of Hajime Oge (JP Patent # 409312808A).

[Claim 17]

Ueda fails to teach in second embodiment wherein an image processing circuit is provided in an inner portion of the image pickup element at an inside of the peripheral surface. However Ueda teaches in first embodiment, figure 6 disclose the image processing circuits 13 and 14 provided in an inner portion of the image pickup element 2 and inside of the peripheral surface formed around the photoelectrically converting section 12 and leg portion 11 (col. 7 lines 27-32). Therefore taking the combined teachings of first and second embodiment, it would be obvious to one skilled in the art at the time of the invention to have been motivated to have an image processing circuit is provided in an inner portion of the image pickup element at an inside of the peripheral surface processing circuits in order to have image processing circuits on the inside of the peripheral surface thereby making the apparatus compact.

[Claim 21]

Ueda fails to teach in second embodiment wherein the optical member is adapted to be inserted into the lens frame from the object side. However Ueda teaches in first embodiment Figures 35a-e that the optical member 10 is inserted into the lens frame from the object side. Therefore taking the combined teachings of first and second embodiment, it would be obvious to one skilled in the art at the time of the invention to have been motivated to have the optical member is adapted to be inserted into the lens frame from the object side in order to accurately align the photoelectric portion as taught in Ueda (col. 19 lines 54-col. 20 line 16).

[Claim 22]

Ueda fails to teach in second embodiment a first diaphragm to regulate a F-number of the lens section and a second diaphragm located at the object side of the first diaphragm to regulate a peripheral light flux. However Ueda teaches in first embodiment a first diaphragm comprising a

hole 3 that functions as a fixed iris of the lens section 4 (col. 7 lines 22-26, figure 6) which reads on a diaphragm regulating an F-number of the lens section and a second diaphragm comprising a housing of the holder 2 is a package 2A located at the object side positioned from the first diaphragm and to regulate a peripheral light flux (col. 7 lines 20-22).Therefore taking the combined teachings of first and second embodiment, it would be obvious to one skilled in the art at the time of the invention to have been motivated to have a first diaphragm to regulate a F-number of the lens section and a second diaphragm located at the object side of the first diaphragm to regulate a peripheral light flux in order to shield the photoelectric converting portion form peripheral light.

[Claims 23 and 24]

Ueda fails to teach in second embodiment wherein the lens section comprises a first diaphragm to regulate a F-number of the lens section and is a positive single lens having a surface with a curvature stronger at an image side and has two lenses. However Ueda teaches in prior art a lens section 102 comprising a first diaphragm (the convex lens shown in figure 1 on the object side to regulate the F-number of the lens section and is a positive single lens having a surface with a curvature stronger at an image side (col. 1 lines 25-32, figure 1 shows two lenses). Therefore taking the combined teachings of second embodiment and prior art, it would be obvious to one skilled in the art at the time of the invention to have been motivated to have the lens section comprises a first diaphragm to regulate a F-number of the lens section and is a positive single lens having a surface with a curvature stronger at an image side in order to shield the photoelectric converting portion form peripheral light.

[Claim 25]

Ueda teaches two lenses a convex (positive) and concave (negative) that forms the lens section (figure 1).

[Claim 26]

Ueda teaches the lens section 102 has a lens 104 focus lens (the convex lens shown in figure 1 on the image side) located closest to the image side is a positive lens and a first diaphragm (the convex lens 103 shown in figure 1 on the object side) that functions as an iris adjusting mechanism of the lens section which reads on a diaphragm regulating an F-number of the lens section arranged at the object side positioned from the lens located closest to the image side (col. 1 lines 25-32).

[Claim 27]

Ueda teaches that the position of each of the at least two lenses as shown in figure 1 (convex and concave) in a direction perpendicular to the optical axis is set by the lens frame shown (broadly read as engaging surfaces) of the at least two lenses parallel to the optical axis in the lens section.

4. Claims 18-20, 28, 30-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda (US Patent # 6,122,009), Hajime Oge (JP Patent # 409312808A) and in further view of Toyoda et al. (US Patent # 2001/0012073).

[Claim 18]

Ueda teaches all the recited limitations of claim 14 but fails to teach "an elastic member to press the optical member toward the image pickup element with an elastic force in an optical axis direction". However Toyoda et al. teaches an elastic member 110 (figure 8) for absorbing the play of the holder (Paragraph 0003). It would be inherent that the elastic member 110 would

press the optical member toward the image pickup element with an elastic force in an optical axis direction.

Therefore taking the combined teachings of Ueda, Oge and Toyoda, it would have been obvious to one skilled in the art at the time of the invention to have been motivated to have an elastic member taught by Toyoda in between the holder and optical member of Ueda in order to absorb the play of the holder.

[Claims 6 and 19]

Toyoda teaches a cover member 105 attached to the lens frame 101 at the object side positioned from the lens section and to press the lens section, wherein the cover member includes a part 102 capable of transmitting light (Paragraphs 0003 and 0004, figure 8).

[Claims 7 and 20]

Toyoda teaches an infrared ray cut filter 103 (Paragraph 3, figure 8).

[Claims 28 and 37]

Ueda teaches an image pickup device (figure 45) attached to a base board (figure 45, substrate 51) comprising an image pickup element (figure 45, CCD bare chip 12 and the peripheral portion on which the leg of the lens section 54 rests on the substrate 51 is read as image pick up element) attached to the base board (51) and including a photoelectrically converting section (CCD bare chip 12) in which pixels are arranged (col. 23 lines 37-43), a peripheral top surface formed around the photoelectrically converting section and leg portion (peripheral top surface is read as wherein the leg section of the lens rests and where terminals to connect the CCD 12 are located) and a side surface adjoining the peripheral top surface (side surface is adjacent to the peripheral surface).

an optical member including a lens section (54) to form an image of an object onto the photoelectrically converting section (CCD 12) of the image pickup element, a leg section to support the lens section and a contact surface provided at a lower end of the leg section (figure 45 teaches lens section 54 having legs that support the lens section and a contact surface where it comes in contact with the image pick up element).

Ueda teaches in figure 45 a lens frame (resin 66), having a contact surface at a lower end thereof and an inner space in which the optical member is accommodated so as to come in contact with an inner wall of the lens frame

wherein the optical member is mounted on the image pickup element such that a position between the lens section and the photoelectrically converting section of the image pickup element in an optical axis direction is determined by bringing the contact surface in direct contact with the peripheral top surface or with a top surface member (In figure 45, when the optical element including the lens section 54 is mounted on the photoelectric section 12, the position between the lens section 54 and the photoelectrically converting section is determined by bringing the contact surface in direct contact with the peripheral top surface or with a top surface member)

wherein the lens frame (resin 66) is mounted on the base board (substrate 51) such that the position between the lens section and the photoelectrically converting section of the image pickup element in a direction perpendicular to the optical axis is determined by bringing the contact surface of the lens frame in direct contact with only a top surface of the base board and by positioning the lens frame on the base board (In figure 45, When the lens frame 66 is positioned on the base board 51, the position between the lens section and the photoelectrically

converting section 12 in a direction perpendicular to the optical axis is determined by bringing the contact surface of the lens frame in direct contact with only a top surface of the base board and by positioning the lens frame on the base board).

Ueda fail to teach a lens frame having a slidable contact surface wherein the lens frame is mounted on the base board such that the position between the lens section and the photoelectrically converting section of the image pickup element in a direction perpendicular to the optical axis is determined by bringing the slidable contact surface of the lens frame in direct contact with only a top surface of the base board and by positioning the slidable contact of the lens frame on the base board. However Oge teaches a lens structure 3 as shown in figure 4 that is moved in the X-Y direction to the CCD chip 2 on a substrate 1 (see figures 1-5) it adjusts so that a mark 5 may be arranged for alignment with the help of pattern detectors 9a and 9b, so that the axis of CCD chip and lens 6 will come in alignment (Paragraph 12).

Therefore taking the combined teachings of Ueda and Oge, it would be obvious to one skilled in the art at the time of the invention to have been motivated to have a slidable contact surface wherein the lens frame is mounted on the base board such that the position between the lens section and the photoelectrically converting section of the image pickup element in a direction perpendicular to the optical axis is determined by bringing the slidable contact surface of the lens frame in direct contact with only a top surface of the base board and by positioning the slidable contact of the lens frame on the base board in order to make positioning precise and easy and automate it, improve the productivity and reduce the cost by imaging the mark through a lens and moving and adjusting a lens structure as taught in Obe (Abstract).

Ueda in view of Oge fail to teach "an elastic member to press the optical member toward the image pickup element with an elastic force". However Toyoda et al. teaches an elastic member 110 (figure 8) for absorbing the play of the holder (Paragraph 0003). It would be inherent that the elastic member 110 would press the optical member toward the image pickup element with an elastic force.

Therefore taking the combined teachings of Ueda, Oge and Toyoda, it would have been obvious to one skilled in the art at the time of the invention to have been motivated to have an elastic member taught by Toyoda in between the holder and optical member of Ueda in order to absorb the play of the holder.

[Claim 30]

Ueda teaches a lens frame (4) fixed to the base board (1, See figure 6). Toyoda teaches a cover member 105 attached to the lens frame 101 at the object side positioned from the lens section and to press the elastic member 110, wherein the cover member includes a part 102 capable of transmitting light (Paragraphs 0003 and 0004, figure 8).

[Claims 31, 35, 36]

Toyoda clearly discloses that the elastic member 110 is constructed as a separate body from the optical member 101 and the cover member 105 (figure 8). Ueda and Toyoda fail to teach an elastic member to be constructed in a single body with the cover member or an optical member. However Official Notice is taken of the fact that it is common to have an elastic member to be constructed in a single body with the cover member or an optical member in order to simplify the overall construction by having lesser number of parts. Therefore taking the combined teachings of Ueda, Oge, Toyoda and Official Notice it would have been obvious to one skilled in the art at

the time of the invention to have been motivated to have an elastic member to be constructed in a single body with the cover member or an optical member in order to simplify the overall construction by having lesser number of parts.

[Claim 32]

Ueda, Oge and Toyoda fail to teach whether the elastic member is a coil spring. However Official Notice is taken of the fact that it is notoriously common to have an elastic member made of coil spring in order to easily vary the force applied on the optical member by varying the diameter of the spring. Therefore taking the combined teachings of Ueda, Oge, Toyoda and Official Notice it would have been obvious to one skilled in the art at the time of the invention to have been motivated to have an elastic member made of coil spring in order to easily vary the force applied on the optical member by varying the diameter of the spring.

[Claims 33-34]

Ueda, Oge in view of Toyoda fail to teach whether the elastic member is a sheet shaped member having a central portion with a light shielding capacity and to regulate the F-number of the lens section. However Official Notice is taken of the fact that it is notoriously common to have an elastic member made of a sheet shaped member like a rubber or plastic having a central portion with a light shielding capacity and to regulate the F-number of the lens section in order to reduce the overall cost because the cost of manufacturing is very low. Therefore taking the combined teachings of Ueda, Oge, Toyoda and Official Notice it would have been obvious to one skilled in the art at the time of the invention to have been motivated to have an elastic member made of a sheet shaped member having a central portion with a light shielding capacity and to regulate the

F-number of the lens section because the cost of manufacturing is very low which reduces the overall cost of the apparatus.

5. Claims 29 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda (US Patent # 6,122,009), Hajime Oge (JP Patent # 409312808A), Toyoda et al. (US Patent # 2001/0012073) and in further view of Basista et al. (US Patent # 4,451,124).

[Claims 29 and 38]

Ueda teaches an optical member (figure 6, lens portion 10) including a lens section (4), a leg section (11) to support the lens section (figure 8 clearly shows a leg portion 11 supporting the lens portion 4) and a contact surface shown as 11A to be brought in contact with the image pickup element on a condition that the image pickup element is positioned so as to face the lens section. Ueda in view of Toyoda fail to teach that the lens section is brought in contact with the image pickup element with a weight of 5 g to 500 g. However Basista et al. teaches a lens system having a weight of 264.8 grams that can be brought in contact with image pick up element of Ueda in order to have good imaging performance.

Therefore taking the combined teachings of Ueda, Oge, Toyoda and Basista it would have been obvious to one skilled in the art at the time of the invention to have been motivated to have a lens system having a weight of 5-500 grams that can be brought in contact with image pick up element in order to have good imaging performance.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yogesh K. Aggarwal whose telephone number is (571) 272-7360. The examiner can normally be reached on M-F 9:00AM-5:30PM.

7. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lin Ye can be reached on (571)-272-7372. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

YKA
January 6, 2008

LIN YE
SUPERVISORY PATENT EXAMINER